

## **FABRICATION METHOD AND STRUCTURE FOR FERROELECTRIC NONVOLATILE MEMORY FIELD EFFECT TRANSISTOR**

### **ABSTRACT OF THE DISCLOSURE**

A method for fabricating a non-volatile memory device. The method includes  
5 providing a substrate, e.g., silicon. The method also includes forming an oxide layer  
overlying the substrate; and forming a buffer layer overlying the oxide layer. A ferroelectric  
material is formed overlying the substrate and is formed preferably overlying the buffer layer.  
The method also includes forming a gate layer overlying the ferroelectric material, where the  
gate layer is overlying a channel region. The method further includes forming first  
10 source/drain region adjacent to a first side of the channel region and a second source/drain  
region adjacent to a second side of the channel region. In other embodiments, the method can  
also include other steps.

15 PA 3115422 v1